Drug Side Effects Common With Antiepileptics

BY HEIDI SPLETE

TORONTO — About 40% of epilepsy patients are bothered by side effects of their antiepileptic drugs, based on data from a survey of adults with epilepsy.

Information on the tolerability of antiepileptic drugs (AEDs) and the reasons for discontinuing treatment are limited, said George J. Wan, Ph.D., in a poster presentation at the annual meeting of the American Academy of Neurology.

To examine drug tolerability and treatment satisfaction, Dr. Wan, of Ortho-McNeil Janssen Scientific Affairs LLC, and his colleagues reviewed data from the National Survey of Epilepsy, Comorbidities, and Health Outcomes (EPIC), a large survey conducted in the United States in 2009 that included 7,500 epilepsy patients and 2,500 controls.

VITALS

Major Finding: Of patients who stopped taking AEDs, 45% cited side effects as a reason; those taking two or more AEDs were less likely to be satisfied with the side effects than were those taking one AED.

Data Source: National Survey of Epilepsy, Comorbidities, and Health of 7,500 epilepsy patients and 2,500 controls.

Disclosures: The presenter is an employee of Ortho-McNeil Janssen Scientific Affairs LLC, which supported the study.

The researchers evaluated responses from 5,117 self-reporting epilepsy patients. A total of 2,395 respondents reported being formally diagnosed with epilepsy or a seizure disorder; of those, 1,415 (59%) were taking antiepilepsy drugs at the time of the survey. About 60% of the respondents reported taking one AED, 35% reported taking two or three, and 5% reported taking four or more. The respondents had been taking AEDs for an average of 115 months.

A total of 772 respondents said that they were "not at all" bothered by side effects from AEDs during the 4 weeks leading up to the survey. But 519 respondents reported some degree of bother: 22% were mildly bothered; 12%, moderately bothered; 5%, markedly bothered; and 1%, extremely bothered.

Overall, 72% of the respondents said they were either "somewhat satisfied" or "very satisfied" with their current AED regimens. But a total of 304 respondents said that they had discontinued their medications. Of those, 50% discontinued on their doctor's advice; 45% discontinued because of side effects; 30%, because of improvement in seizures or the disappearance of seizures; and 21%, because of inadequate seizure control. Some respondents indicated more than one reason for discontinuing their AEDs.

After controlling for baseline characteristics and lifetime seizures, patients who were taking two or more AEDs were less likely to be satisfied with the side effects compared with those who were taking one AED. The study was limited by the use of self-reports. "Further research is needed to quantify the impact of AED treatment on other patient-reported outcomes," they said. ■

Dietary Pattern Linked to Risk for Alzheimer's Disease

BY MARY ANN MOON

A diet rich in certain foods such as nuts, fish, and vegetables and low in high-fat dairy foods and red meat appears to exert a preventative effect on the development of Alzheimer's disease, according to study findings.

"Our findings provide support for further exploration of food-combination–based dietary behavior for the prevention of this important public health problem," wrote Yian Gu, Ph.D., of the Taub Institute for Research in Alzheimer's Disease and the Aging Brain at Columbia University, New York, and associates.

The researchers studied dietary data obtained by food frequency questionnaires in two multiethnic cohorts: elderly subjects participating in the 1992 and the 1999 Washington Heights–Inwood Columbia Aging Project (WHICAP). Their study included 2,148 individuals who underwent serial batteries of neuropsychological tests, assessments of social and occupational function, and specific testing for cognitive deficits and dementia.

During an average follow-up of about 4 years, 253 of these subjects developed Alzheimer's disease. Subjects were diagnosed for dementia using the criteria developed by the National Institute of Neurological and Communicative Disorders and Stroke and the Alzheimer Disease and Related Disorders Association. Some of the patients may have had stroke in addition to Alzheimer's.

The investigators calculated dietary patterns based on variations in the content of seven key nutrients that have been most consistently related to dementia risk in the literature. Only one dietary pattern was found to be strongly associated with AD prevention: a diet rich in omega-3 polyunsaturated fatty acids, omega-6 polyunsaturated fatty acids, vitamin E, and folate and poor in saturated fatty acids and vitamin B_{12}.

This pattern correlated with high intakes of salad dressing, nuts, fish, tomatoes, poultry, cruciferous and dark leafy green vegetables and low intakes of high-fat dairy foods, such as butter, red meats, and organ meats, Dr. Gu and colleagues said

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Dark greens, such as spinach, and poultry were protective in the study.

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The protective effect of such a diet did not change after the data were adjusted to account for age, level of education, ethnicity, and sex. Further analysis adjusting for smoking status, body mass index, caloric intake, comorbidities, and apolipoprotein E genotype only slightly attenuated the results.

This study was funded by the National Institute on Aging. No conflicts of interest were reported. ■

IVIG Reduced Brain Atrophy, Improved Cognition in AD

BY JEFF EVANS

TORONTO — Intravenous immunoglobulin therapy reduced brain atrophy in patients with mild to moderate Alzheimer's disease in a small phase II trial. The finding suggests that specific IgG antibody components found in the blood product might be treatment candidates for the disease.

"Relative to what we have available right now [to treat Alzheimer's disease], this is a very promising outcome, and it's associated with a reduction in the rate of brain atrophy comparable to age-matched normals," Dr. Norman Relkin said during a poster presentation at the annual meeting of the American Academy of Neurology.

Enlargement of the cerebral lateral ventricles is known to occur as a consequence of brain atrophy in Alzheimer's disease (AD). This increase in ventricular volume is correlated with cognitive decline and increases in Alzheimer's disease neuropathology.

Dr. Relkin and his colleagues compared intravenous immunoglobulin (IVIG) therapy against placebo in a 6-month, double-blind, randomized study of 24 patients with mild to moderate AD. In a 12-month extension phase of the study, 16 patients who originally were randomized to IVIG continued to receive the same doses of IVIG, whereas 8 placebo-treated patients were re-randomized to one of four doses of IVIG. The investigators used an IVIG product produced by Baxter Healthcare called Gammagard.

IVIG exhibited a dose-dependent effect on brain atrophy in which higher doses resulted in less atrophy. Among 14 IVIG-treated patients who underwent volumetric MRI at baseline and after 18 months, the yearly increase in lateral ventricle volume measured with volumetric MRI was lowest in patients treated with 0.4 mg/kg every 2 weeks (2.4%) and highest in those treated with 0.2 mg/kg every 2 weeks (11.2%). The doses of IVIG given to patients ranged from 0.2 mg/kg every 2 weeks to 0.8 mg/kg every 4 weeks.

VITALS

Major Finding: Treatment with a range of doses of IVIG for 18 months resulted in a mean increase of 6.7% in lateral ventricular volume, which was significantly lower than the 12.3% increase observed with placebo.

Data Source: A double-blind, randomized, placebo-controlled phase II trial of 24 patients with mild to moderate Alzheimer's disease.

Disclosures: Baxter Healthcare sponsored the study of IVIG, with additional support from the Citigroup Foundation and the National Institutes of Health. Dr. Relkin reporting no relevant disclosures besides receiving a research grant from Baxter Healthcare to study IVIG.

The volume of the lateral ventricles increased by a mean of 6.7% per year during treatment with IVIG (all doses combined), which was significantly lower than the 12.3% annual rate of increase observed in six placebo-treated patients.

Only the 0.4-mg/kg dose of IVIG given every 2 weeks resulted in significantly less change in total brain volume than did treatment with placebo (–0.62% vs. –2.24%, respectively).

"In addition to the brain imaging, we have previously shown changes in cerebrospinal fluid and plasma amyloid levels …and levels of cerebral metabolism changing in response to treatment," said Dr. Relkin, director of the Memory Disorders Program at New York–Presbyterian Hospital/Weill Cornell Medical Center.

The reduction in brain atrophy was significantly correlated with improvement in clinical outcomes at 18 months on the Clinical Global Impression of Change and the cognitive subscale of the Alzheimer's Disease Assessment Scale. Baseline characteristics of the patients were not correlated with volumetric MRI outcomes. ■